

Appendix C23-A

HAZARDOUS MATERIAL/HAZARDOUS WASTE CONTAINERS

PART 1

SHIPBOARD USED/EXCESS MATERIAL/CONTAINER CROSS-REFERENCE

Hazardous Material	Container ¹
Acetic acid	Plastic bottle; plastic-lined steel drum
Acetic acid, glacial	Plastic bottle
Acetone	Tin can; steel drum, bung, and vent
Activator/stabilizer (sodium borate)	Plastic-lined steel drum
Adhesive, lagging (organic polymer)	Steel drum
Adhesive, N.O.S. ⁵	Steel drum
AFFF (aqueous film forming foam)	Variable ²
Alodine 1201 (chromic acid)	Glass carboy
Ammonia solution, nickel electroplating	Plastic bottle
Aniline	Tin can; steel drum, bung, and vent
Asbestos	6 mil (6/1,000 inch) plastic bag
Batteries (lead-acid or alkaline wet cell)	Steel drum ⁴
Battery acid (sulfuric)	Plastic bottle; plastic-lined steel drum ³
Baygon (phenolic pesticide)	Steel drum, bung, and vent
Blanket wash (acacia gum)	Steel drum
Bulbs, fluorescent light (with mercury)	Original carton
Chemicals, photographic, N.O.S. ⁵	Plastic bottle
Chromium electroplating solution	Plastic bottle
Citric acid	Plastic bottle ³
Cleaner, chemical, N.O.S. ⁵	Tin can; steel drum
Cleaning solvent, N.O.S. ⁵	Steel drum, bung, and vent
Cobalt electroplating solution	Plastic bottle

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Hazardous Material	Container ¹
Compound, epoxy	Steel drum
Compound, silicone	Steel drum
Concentrated Solutions (photo refresher) N.O.S. ⁵	Plastic bottle; plastic-lined steel drum
Copper electroplating solution	Plastic bottle
Compound, antiseize (graphite-petroleum)	Steel drum, removable cover
Compound, antiseize (lead oleate)	Steel drum, removable cover
Compound, boiler passivator (oxalic acid)	Plastic-lined steel drum
Compound, descaler (caustic/acid)	Plastic-lined steel drum
Compound, sealing (synthetic polymer)	Steel drum
Damping fluid (petroleum base)	Tin can
Darco drycoal activated	Steel drum (for contaminated material, removable cover)
Developer, N.O.S. ⁵	Plastic-lined steel drum
Disinfectant, fungisol (quinone)	Plastic bottle
Disinfectant, general purpose	Steel drum, bung, and vent
Disodium phosphate	Steel drum, removable cover
Earth, diatomaceous (filter)	Plastic-lined steel drum (for contaminated material)
Electroplating etching solution, N.O.S. ⁵	Plastic bottle; plastic-lined steel drum
Ethylene glycol (antifreeze)	Plastic-lined steel drum
Ethyl alcohol	Plastic bottle
Fiberglass epoxy	Steel drum
Fixer (w/silver halides), N.O.S. ⁵	Plastic bottle; plastic-lined steel drum

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Hazardous Material	Container ¹
Flux (sodium nitrate/nitrite) N.O.S. ⁵	Tin can; steel drum
Formic acid solution, nickel electroplating	Plastic bottle; plastic-lined steel drum
Freon	Plastic bottle; plastic-lined steel drum
Grease, ball bearing	Steel drum, removable cover
Grease, general purpose	Steel drum, removable cover
Grease, graphite	Steel drum, removable cover
Grease, halocarbon	Steel drum, removable cover
Hydraulic fluid (petroleum)	Steel drum, removable cover
Hydraulic fluid (synthetic)	Epoxy-lined steel can; plastic lined steel drum
Hydrochloric acid	Plastic bottle ³
Hydrofluoric acid	Plastic bottle
Hydrogen peroxide	Plastic bottle; plastic-lined steel drum
Hypo cleaning (ammonium persulfate)	Plastic-lined steel drum
Indicator, stop bath (organic dye)	Steel drum, bung, and vent
Ink, black oil based	Steel drum, bung, and vent
Insecticide diazinon (organophosphate)	Tin can; steel drum, bung, and vent
Isopropyl alcohol	Plastic bottle
Lacquers	Tin can; steel drum, bung, and vent
Leak test (penetrant)	Plastic bottle
Lithographic solutions, N.O.S. ⁵	Plastic bottle; plastic-lined steel drum
Lithographic solvents, N.O.S. ⁵	Steel drum, bung, and vent
Mercuric nitrate	Plastic bottle

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Hazardous Material	Container ¹
Mercury (amalgam)	Plastic bottle
Mercury remover (calcium oxide-sulfur)	Steel drum, removable cover
Methyl alcohol	Plastic bottle
Methyl ethyl ketone	Steel drum, bung, and vent
Molybdenum graphite, drylube	Steel drum, removable cover
Molybdenum nickel 447	Plastic bottle
Morpholine, 40 percent	Tin can; steel drum ³ , bung, and vent
Naphtha	Steel drum, bung, and vent
Nickel, chromium, aluminum 441	Tin can; steel drum, removable cover
Nickel solutions	Plastic bottle
Nitrate, silver	Plastic bottle; plastic-lined steel drum
Nitric acid	Glass carboy
Nonskid flight deck compound (asphaltic)	Steel drum, removable cover
Oil, cutting (synthetic)	Epoxy-lined steel can
Oil, liquid coolant (synthetic)	Epoxy-lined steel can
Oil, N.O.S. ⁵	Steel drum, bung, and vent
Oxygen breathing apparatus canister	Fiberboard box
Paint, enamel, N.O.S. ⁵	Steel drum, bung, and vent
Perchloroethylene	Steel drum, bung, and vent
Petrobond sand with waste oils	Steel drum, removable cover
Phosphoric acid	Plastic bottle; plastic-lined steel drum
Pinso pads (shellac)	Steel drum, removable cover

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Hazardous Material	Container ¹
Polychlorinated Biphenyls (PCB's), items containing	Polyethylene lined steel cans; plastic-lined steel drum, bung, and vent/removable cover
Remover, paint (caustic)	Plastic bottle; plastic-lined steel drum
Resin, ion exchange (activated polymers)	Steel drum (for contaminated material)
Resin, laminating (plastic)	Steel drum
Reverser (aromatic hydrocarbon reducers)	Steel can
Silver solutions	Plastic bottle
Sodium chromate (ballast)	Variable ²
Sodium chromate	Plastic bottle
Sodium cyanide solution, gold electroplating	Plastic bottle
Sodium hydroxide solid	Steel drum, removable cover
Sodium hydroxide solution	Steel can; steel drum ³ , bung, and vent
Sodium nitrate	Steel drum
Sodium phosphate	Steel drum ³
Stannous chloride	Plastic bottle
Stannous fluoride	Plastic bottle
Stop bath, N.O.S. ⁵	Plastic bottle
Sulfamic acid solid	Plastic-lined steel drum
Sulfamic acid solution	Plastic bottle; plastic-lined steel drum ³
Sulfuric acid	Glass carboy; plastic bottle; plastic-lined steel drum
Thinner (organic), N.O.S. ⁵	Tin can; steel can; steel drum
Tin plating solution	Plastic bottle

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Hazardous Material	Container ¹
Tin 2090	Plastic bottle
Toluene	Tin can; steel can; steel drum, bung, and vent
Trichloroethane solvent	Tin can; steel can; steel drum, bung, and vent
Trichloroethylene	Tin can; steel can; steel drum, bung, and vent
Trichlorofluoromethane	Tin can; steel can; steel drum, bung, and vent
Trisodium phosphate	Steel drum ³
Varnish, insulating electrical	Steel drum, bung, and vent
Varnish, N.O.S. ⁵	Steel drum, bung, and vent
Varnish, phenolic resin	Steel drum
Xylene	Tin can; steel can; steel drum, bung, and vent
Zinc quick cold galvanizing	Plastic bottle; plastic-lined steel drum

- NOTES:**
1. Wherever possible, the Department of Transportation-approved container used in the original issue of the material shall be reused. Container openings specified are for storage of those materials that are characteristically liquid, semi-solid, or solid. Some materials (for example, silicone compounds) may appear in more than one state, depending upon usage. The choice of openings for containers used to hold those materials shall be made on a case-by-case basis.
 2. No standard container proposed. Containers may vary from 5- to 55-gallon drums to large bulk tanks.
 3. Bulk usage is probable in large-scale operations.
 4. Typical shipboard portable wet-cell batteries vary widely in size. Accordingly, personnel shall match the size of the storage drums used to the size and number of batteries to be containerized. A standard 18 gauge, 55-gallon steel drum, for example, will accommodate, respectively, two BB259 batteries; four BB258 batteries; six BB257 batteries; or 40 BB255 batteries. (Weight constraints, however, may also be a factor in determining the total number of batteries per container.) Batteries shall be stored right side up.
 5. Not otherwise specified.

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HAZARDOUS MATERIAL/HAZARDOUS WASTE CONTAINERS

PART 2

SHIPBOARD USED/EXCESS MATERIAL/CONTAINERS:

DESCRIPTION AND SUPPLY DATA

Type	National Stock Number	Item Description
Bag	8105-00-848-9631	Polyolefin, single wall, 5 mil, 36-in by 54-in, flat, wire tie
Plastic bottle with screw cap closure ¹	8125-00-174-0852	Polyethylene, 1 gal, round
	8125-00-731-6016	Polyethylene, 13 gal, round
	8125-00-888-7069	Polyethylene, 5 gal, round
Fiberboard box	8115-01-012-4597	Fiberboard, RSC style, 34-in by 26-in by 16-in, burst-strength 400 lb
Tin can with screw cap closure ¹	8110-00-879-7182	Tin, 1 gal, oblong, enamel outside surface treatment
Steel can lined	8110-00-128-6819 ²	Steel, 24 gauge, 1 gal, screw cap with neoprene liner closure, epoxy resin interior lining
	8110-00-400-5748 ²	Steel, 24 gauge, 5 gal, screw cap with neoprene liner closure, epoxy resin interior lining
Glass carboy	8125-00-598-9380	Glass, 5 gal, wood box overpack
Steel drum with removable cover	8110-00-030-7780 ²	Steel, 16 gauge, 55 gal, removable cover with lock ring, enamel outside surface treatment
	8110-00-951-9728	Bolt ring set for 55 gal drum
	8110-00-823-8121	Steel, 18 gauge, 55 gal, removable cover with lock ring, enamel outside surface treatment
	8110-01-101-4055	Hazardous material recovery, 85 gal, open head
Steel drum with removable cover ¹	8110-00-866-1728	Steel, 18 gauge, 30.0 gal., removable cover with lock ring, enamel outside/inside surface treatment
	8110-01-016-7362	Bolt ring set for 30 gal. drum

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SHIPBOARD USED/EXCESS MATERIAL/CONTAINERS:

DESCRIPTION AND SUPPLY DATA

Type	National Stock Number	Item Description
	8110-00-082-2625	Steel, 18 gauge, 27 gal., removable cover with lock ring, enamel inside/outside treatment
	8110-00-044-2984	Steel, 18 gauge, 20 gal., removable cover with lock ring, enamel inside/outside treatment
	8110-00-254-5716	Steel, 20 gauge, 12 gal., removable cover with lock ring, enamel inside/outside treatment
	8110-00-254-5715	Steel, 20 gauge, 9 gal., removable cover with lock ring, enamel inside/outside treatment
	8110-00-254-5713	Steel, 22 gauge, 6 gal., removable cover with lock ring, enamel inside/outside treatment
	8810-01-254-5722	Steel, 22 gauge, 4 gal., removable cover with lock ring, enamel inside/outside treatment
	8110-01-101-4056	Hazardous material recovery, 85 gal, open head
Steel drum with bung and vent ¹	8110-00-282-2520 ²	Steel, 5 gal, enamel exterior treatment, spout
	8110-00-292-9783 ²	Steel, 18 gauge, 55 gal, with bung and vent, enamel outside surface treatment
Steel drum with bung and vent ¹	8110-00-597-2353 ²	Steel, 16 gauge, 55 gal, with bung and vent, paint exterior surface treatment
Plastic liner	8115-00-145-0038 ²	Liner, polyethylene, 5 gal, to be used with 5-gal steel drum
Plastic drum	Not available	Polyethylene, 5 or 55 gal, used to contain AFFF, reusable ³

NOTES:

1. Container openings specified are for storage of those materials that are characteristically liquid, semi-solid, or solid. Some materials (for example, silicone compounds) may appear in more

than one state, depending upon usage. The choice of openings for containers used to hold those materials shall be made on a case-by-case basis.

2. EPA-approved container types for packaging liquid PCBs. Suitable containers that meet the DOT specifications: 5, 5B, 6D (with 2S or 2S polyethylene inserts), 17C, and 17E may be used as substitutes. PCBs should be packed in these approved containers with absorbent material such as standard absorbent sweeping compound, NSN 7930-00-209-1272, or Safestep , NSN 7930-01-145-5797 25 lb.
3. This type can be reused only if the drum:
 - a. Is in good condition.
 - b. Is triple rinsed and completely drained before reuse.
 - c. Is properly relabeled.